reels in older mechanical reel machines often displayed a slight amount of reverse rotation, typically seen just before they started spinning. Mechanically, this was often caused by a spring actuator being wound by a handle pull that engaged the mechanical reels.

[0053] FIG. **2** can also be used to show simulated pre-spinning kick-back **130** of a video reel **125** before simulated spinning begins in accordance with another specific embodiment. Again, counter-rotation **132** for pre-spinning kick-back **130** includes motion in a direction **132** opposite to the primary direction **134** of spin for reel **125**.

[0054] The amount of pre-spinning counter-rotation **132** may include any motion that induces a sense of realism in perception by a player. Similarly, pre-spinning kickback **130** may vary with the size of a video display area, a size for reel **125**, an amount of motion the designer wants, etc. It may also be determined empirically. In a specific embodiment, pre-spinning counter-rotation **132** from reference line **136** was less than about 0.5 percent of the visible height of reel **125**. A range of pre-spinning counter-rotation **132** displacements from about 1 pixel to about 5 pixels is suitable for many display devices. In a more specific embodiment, the symbols **126** on reel **125** pull back from reference line **136** less than 0.5% of the screen height for a display device.

[0055] Another visible mechanical imperfection in real reel gaming machines is varying rotational speed between adjacent reels. This slight speed variation may be due to minor machining tolerances in actuators for the reels, for example.

[0056] FIG. **3** shows video for five reels **125***a*-**125***e* with different speeds **140***a*-**140***e* in accordance with another embodiment. The magnitude of arrows **140***a*-*e* indicates the respective speed of each reel **125**.

[0057] The speed difference between reels **125***a*-**125***e* is typically minor. In a specific embodiment, the speed varies between reels by less than about 15 percent of the maximum speed for a video reel in a set of reels.

[0058] Another difference between video animations and real mechanical systems is randomness. Video animations display exactly as they are programmed, which usually means displaying the same each time they are called. For a gaming machine where a player can play dozens or hundreds of times, this repeatability can be readily seen. Most mechanical reel systems, however, are subject to some degree of variation between successive spins. In a specific embodiment, realistic simulation applies randomness to video output to further add to simulated imperfection. Indeed, all of the above-mentioned mechanical imperfections and embodiments may exhibit and add a degree of randomness in the short term. For example, in reality, the degree of kick-back depends in part upon rotational speed of a reel and how closely the reel latch was to the centered resting position upon actuation. Thus, a random factor may be added to kickback **130** of FIG. **2**. The random factor varies the amount of counter-rotation **132** by a small amount that resembles random disturbances. In a specific embodiment, the counter-rotation **132** by about 10 percent to about 25 percent of counter-rotation **132**. Other random factors are also suitable for use. Over the longer term (e.g., years), normal wear of moving parts within the machine also often increases the magnitude and randomness of these unintended mechanical imperfections and effects. For example, the amount of jitter **120** may vary between processor-based gaming machines to let players perceive there are visible differences between the machines.

[0059] In one embodiment, the video reels and one or more simulated mechanical imperfections are output on a gaming machine having a single display device that outputs video information for a game. As the term is used herein, a display device refers to any device configured to output a visual image in response to a control signal. In one embodiment, the display device includes a screen of a finite thickness, also referred to herein as a display screen. For example, LCD display devices often include a flat panel that includes a series of layers, one of which includes a layer of pixilated light transmission elements for selectively filtering red, green and blue data from a white light source. Each display device is adapted to receive signals from a processor, video processor or controller included in the gaming machine and to generate and display graphics and images to a person near the gaming machine. The format of the signal will depend on the device. In one embodiment, all the display devices in a layered arrangement respond to digital signals. For example, the red, green and blue pixilated light transmission elements for an LCD device typically respond to digital control signals to generate colored light, as desired.

[0060] In another embodiment, the gaming machine includes multiple display devices arranged in a common line of sight relative to a person near the gaming machine. Multiple display devices disposed along a common line of sight are referred to herein as 'layered' displays. In one embodiment, the gaming machine includes two display devices, including a first, foremost or exterior display device and a second, underlying or interior display device. For example, the exterior display device may include a transparent LCD panel while the interior display device includes a second LCD panel.

[0061] Referring primarily now to FIGS. **4**A and **4**B, a gaming machine **10** of a specific embodiment with layered displays includes a cabinet or housing **12** that houses exterior display device **18***a*, intermediate display device **18***b* (FIG. **4**B only), interior display device **18***c* and a touchscreen **16**.

[0062] Layered display devices may be described according to their position along a common line of sight relative to a viewer. As the terms are used herein, 'proximate' refers to a display device that is closer to a person, along a common line of sight (such as **20** in FIG. **4**A), than another display device. Conversely, 'distal' refers to a display device that is farther from a person, along the common line of sight, than another. While the layered displays of FIGS. **4**A and **4**B are shown set back from touchscreen **16**; this is for illustrative purposes and the exterior display device **18***a* may be closer to touchscreen **16**.

[0063] These layered display devices are well suited to output video data that simulates a mechanical reel game. FIG. **5**A shows video output on layered displays and configured to realistically simulate mechanical reels in accordance with one embodiment. FIG. **5**B shows the video output of FIG. **5**A separated into front and back video output, and for provision to front and back layered displays, in accordance with one embodiment.

[0064] As shown in FIG. **5**A, the layered displays are configured to resemble a traditional mechanical slot machine—both a) spatially and b) using video provided to each display device **18***a* and **18***c*. In this case, as shown in FIG. **5**B, front display device **18***a* outputs silkscreen video data that resembles a silk-screened glass, while rear display device **18***c*